AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) A computerized method for identifying peaks corresponding to glycans from a mass spectrum, comprising:

receiving not less than one glycan spectrum from a mass spectrometer, wherein said not less than one glycan spectrum includes peaks having a measured mass;

assigning glycan identifications to said peaks; and

reporting said peak assignments.

2. (Original) The method for identifying peaks corresponding to glycans according to claim 1, further comprising constructing a monosaccharide set table having a plurality of isomers corresponding to glycans.

3. (Original) The method for identifying peaks corresponding to glycans according to claim 2, wherein constructing said monosaccharide set table comprises:

constructing a glycan/monosaccharide set chart, wherein each row represents a set of monosaccharides;

applying combination ranges for said monosaccharides;

developing a rule set, wherein said rules specify monosaccharide combination limitations;

eliminating each of said monosaccharide rows not satisfying said rule set; and

computing glycan isomer mass and glycan isotope frequency.

4. (Original) The method for identifying peaks corresponding to glycans according to claim 1, wherein assigning glycan identifications comprises:

calibrating said received glycan spectrum; and

matching isotopes from said monosaccharide set table to said peaks within said glycan spectrum.

5. (Original) The method for identifying peaks corresponding to glycans according to claim 4, wherein calibrating said received glycan spectrum comprises setting said calibration explicitly.

6. (Original) The method for identifying peaks corresponding to glycans according to claim 4, wherein matching isotopes comprises:

selecting the isotope with the highest expected frequency for each said monosaccharide;

searching said spectrum for a peak within an acceptable tolerance of said isotope; and

selecting said peak having the best isotope envelope.

7. (Original) The method for identifying peaks corresponding to glycans according to claim 4, further comprising performing a quality assessment, wherein said quality assessment determines the likelihood that said peak assignment is correct.

8. (Original) The method for identifying peaks corresponding to glycans according to claim 7, wherein performing said quality assessment comprises:

measuring proximity of said measured mass of a selected peak to the theoretical mass of the glycan;

computing said isotope envelopes; and

examining the peak height at a peak height mass minus one position.

9. (Original) The method for identifying peaks corresponding to glycans according to claim 4, further comprising performing spectrum combination, wherein said spectrum combination includes combining the information from a plurality of spectra.

10. (Original) The method for identifying peaks corresponding to glycans according to claim 1, wherein said reporting of said peak assignments comprises not less than

one family report, wherein said family comprises a sequence of spectrum peaks, wherein the label for each succeeding peak contains not less than one more monosaccharide than the label of the preceding peak.

11. (Original) The method for identifying peaks corresponding to glycans according to claim 1, wherein said glycan identifications comprise a plurality of cartoons, wherein said cartoons comprise symbolic representations of said rows from said monosaccharide table.

12. (Canceled).

13. (Canceled).

14. (Canceled).

15. (Canceled).

16. (Canceled).

17. (Canceled).

18. (Canceled).

19. (Canceled).

20. (Canceled).

21. (Original) An article of manufacture comprising a computer usable medium having computer readable program code embodied in said medium which, when said program

code is executed by said computer causes said computer to perform method steps for identifying peaks corresponding to glycans from a mass spectrum, comprising:

receiving not less than one glycan spectrum from a mass spectrometer, wherein said not less than one glycan spectrum includes peaks having a measured mass;

assigning glycan identifications to said peaks; and

reporting said peak assignments.